

REMARKS

Applicant has amended Claim 1. Claims 1-18 remain pending in the present application, and claims 6-18 have been allowed. Reconsideration of the application in view of the foregoing amendments and following comments is respectfully requested.

In the changes made to Claim 1 by the current amendment, deletions are shown by strikethrough (e.g., ~~deletions~~), and additions are underlined (e.g., additions). The changes are made for purposes of clarification, and are not intended to narrow the scope of Claim 1. The word "inverse" has been inserted in the phrase "linear ill-posed problem" to accord Claim 1 with the specification.

Discussion of Claim Rejections Under 35 U.S.C. § 102

The Examiner rejected Claims 1-5 under 35 U.S.C. § 102(b) as being anticipated by Fan (U.S. Patent No. 5,359,676). With regard to Claim 1, the Examiner states the following:

Fan discloses a method of digital image enhancement of a multidimensional digital image, said image being represented by a matrix [d] comprising image parameters, wherein said matrix [d] is mathematically manipulated to solve a linear ill-posed problem to reduce blurring, the improvement comprising: imposing a constraint on a reconstructed image matrix, said constraint being based upon minimization of the area where strong variations and discontinuities between said image parameters occur. (Abstract, step d and e). Fan discloses a method of improving the appearance of an image by adaptively filtering that image depending on the detection of edges or area where strong variations between image parameters occur.

Applicant has amended Claim 1. A rejection under 35 U.S.C. § 102(b) in view of a prior patent can only be properly sustained if that patent discloses each and every element of the claim arranged as in the claim. This Fan fails to do with respect to amended Claim 1.

Fan does not disclose the mathematical manipulation of a matrix in order to solve a linear ill-posed problem of any sort. Moreover, Fan does not disclose a method that imposes any constraint on a solution to a linear ill-posed inverse problem so as to produce an image matrix. Rather, Fan's disclosed method operates on matrices that have been "compressed" by processes

involving discrete cosine transforms. (Column 9, Lines 1-38). The Fan patent and the claimed constraint on the solution to the linear ill-posed inverse problem utilize entirely different mathematical operations.

Furthermore, Fan does not teach or suggest imposing a constraint on anything in a way that is "based upon minimization of the area where strong variations and discontinuities between . . . image parameters occur," as recited in Claim 1. The Fan method merely detects "edges" in a matrix, makes a map of those edges, and then uses the map to prevent a filter from working on those edges. (Column 10, Lines 27-33; Column 11, Lines 9-37). More importantly, Fan nowhere discloses solving a linear ill-posed inverse problem, let alone posing a constraint on the solution to such a problem.

Thus, because the Fan patent fails to disclose all of the elements of independent Claim 1, Fan cannot anticipate Claim 1. Furthermore, because Claims 2-5 depend from Claim 1, either directly or indirectly, Claims 2-5 also cannot be anticipated by Fan.

Therefore, the Applicant respectfully requests that the Examiner withdraw the rejection of Claims 1-5 under 35 U.S.C. § 102(b).

Appl. No.: 09/787,309

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CONCLUSION

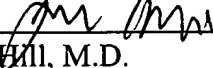
In view of the foregoing amendments and comments, it is respectfully submitted that the present application is fully in condition for allowance, and such action is earnestly solicited. If any questions remain, however, the Examiner is cordially invited to contact the undersigned attorney so that any such matters may be promptly resolved.

Please charge any additional fees or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

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By:   
James W. Hill, M.D.  
Registration No. 46,396  
Attorney of Record  
Customer No. 20,995  
(949) 760-0404

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